

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven Hultquist on 4/7/10.

The application has been amended as follows:

Claim 1 is amended as follows:

An apparatus for storing and dispensing gas, ~~wherein gas is stored, comprising a gaseous hydride that is decomposable to produce hydrogen gas and a solid decomposition product, and wherein the gaseous hydride undergoes decomposition to form hydrogen gas for dispensing, said apparatus comprising:~~

- (a) a storage and dispensing vessel for containing ~~[[the]]~~ a gaseous hydride that is decomposable to produce hydrogen gas and a solid decomposition product, and wherein the gaseous hydride undergoes decomposition to form hydrogen gas; and
- (b) a decomposition chamber, said decomposition chamber comprising a decomposition portion and a collection portion, wherein the storage and dispensing vessel is ~~[[communicatively]]~~ connected in gas flow communication to the decomposition portion of the decomposition chamber, [[and]] wherein the decomposition portion and the collection portion are separated by a hydrogen gas permeable membrane, wherein the decomposition portion contains a phosphoric acid-doped carbon

adsorbent effective to decompose said gaseous hydride to produce hydrogen gas [[for dispensing]], and a solid decomposition product, and wherein the collection portion of the decomposition chamber is arranged to receive hydrogen gas that passes through the hydrogen gas permeable membrane, and to dispense the hydrogen gas for use.

Claim 61 is amended as follows:

The method of claim 50, wherein the hydrogen gas permeable membrane comprises perfluorosulfonic acid.

Claim 36 is cancelled.

Claim 38 is cancelled.

Claim 39 is cancelled.

Claims 42-49 are cancelled.

Claim 84 is cancelled.

2. Claims 1, 2, 4-8, 12, 15-20, 23-27, 29, 32-35, 50-52, 54-56, 60-69, 73, 76, 77, and 80-83 are allowable. The restriction requirement between groups I-V, as set forth in the Office action mailed on 7/1/09, has been reconsidered in view of the allowability of claims to the elected invention pursuant to MPEP § 821.04(a). **The restriction requirement is hereby withdrawn as to any claim that requires all the limitations of an allowable claim.**

In view of the above noted withdrawal of the restriction requirement, applicant is advised that if any claim presented in a continuation or divisional application is

anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

3. The following is an examiner's statement of reasons for allowance: while apparatuses and processes of generating hydrogen from gaseous hydride and physical adsorbents are well-known—see cited Hultquist (US 6,132,492) and Wang (US 6,101,816) references—the current invention has the novel feature of a phosphoric acid-doped carbon adsorbent. Doping carbon adsorbents with phosphoric acid is not known in the art as an effective manner of effecting hydrogen production for a storage and dispensing vessel and decomposition chamber with a hydrogen gas permeable membrane and there is no known motivation of record for modifying the prior art to do so. This fact is, of course, in the context of the entirety of the claims as they are presented currently, including all physical limitations and integral structures.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IMRAN AKRAM whose telephone number is (571)270-3241. The examiner can normally be reached on 10-7 Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/I. A./
Examiner, Art Unit 1795

/Alexa D. Neckel/
Supervisory Patent Examiner, Art Unit 1795